## **Description of Additional Supplementary Files**

**Supplementary Data 1**: sgRNA sequences of the CRISPRi screen library.

**Supplementary Data 2**: MAGeCK output of CRISPRi screen in V16A cells.

**Supplementary Data 3**: MAGeCK output of CRISPRi screen in 22Rv1 cells.

**Supplementary Data 4**: MAGeCK output of CRISPRi screen in A549 cells.

**Supplementary Data 5**: Primers sequences used in this study.

**Supplementary Data 6**: List of IdSNPs and rCREs included in the CRISPRi screen library.